

IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application. An identifier indicating the status of each claim is provided.

Listing of Claims

1. (Currently Amended) An illumination ~~illumination~~ unit, ~~in particular~~ for a projection system device ~~or the like~~, comprising:

[[-]] at least one primary illumination light providing portion (10) ~~being adapted for~~ providing primary illumination light (L1);

[[-]] at least one secondary illumination light providing portion (30) ~~being adapted for~~ providing secondary illumination light (L2), for external use, derived from said primary illumination light (L1); and

[[-]] at least one light selecting element (20) ~~being~~ disposed between and assigned to said primary illumination light providing portion (10) and said secondary illumination light providing portion (30) and being simultaneously adapted to select one or a plurality of predefined spectral components or colors of one ~~and/or~~ of a plurality of predefined polarization components from said primary illumination light (L1) and to thereby generate said secondary illumination light (L2) ~~or a preform or a part thereof~~,

wherein said light selecting element (20) comprises a dichroic multiplayer structure (25) that is adapted to act as a dichroic spectral filter device for incident primary illumination light (L1), and

wherein said dichroic multilayer structure (25) forms at least a part of a diffractive grating structure (31) of said light selecting element (20).

2. (Currently Amended) An illumination ~~Illumination~~ unit according to claim 1, wherein said light selecting element (20) is provided with dichroic spectral selection properties ~~or dichroic color selection properties, in particular in reflection~~ reflexion ~~and/or in transmission~~ of said primary illumination light (L1).

3. (Currently Amended) An illumination ~~Illumination~~ unit according to claim 1, wherein said light selecting element (20) includes ~~is provided with polarization selection properties and in particular with diffractive polarization selection properties, in particular in reflexion and/or in reflection~~ and transmission of said primary illumination light (L1).

4. (Currently Amended) An illumination ~~Illumination~~ unit according to claim 1, wherein said light selecting element (20) is ~~or is~~ adapted to work as a diffractive dichroic beam splitter.

5. (Currently Amended) An illumination ~~Illumination~~ unit according to claim 1, wherein said light selecting element (20) is capable of reflecting ~~or~~ and transmitting s-polarized components of ~~inciding~~ incident primary illumination light (L1) and/or ~~of transmitting or~~ and reflecting p-polarized components of ~~inciding~~ incident primary illumination light (L1).

6. (Currently Amended) An illumination ~~Illumination~~ unit according to claim 1,

wherein said light selecting element (20) is capable of reflecting ~~or~~ and transmitting said predefined spectral components or colors of ~~incident~~ incident primary illumination light (L1) and ~~or~~ of transmitting ~~or~~ and reflecting complements of said predefined spectral components or colors of said ~~incident~~ incident primary illumination light (L1).

7. (Currently Amended) An illumination ~~Illumination~~-unit according to claim 1, wherein said light selecting element (20) ~~comprises a diffractive grating structure (21) being is~~ adapted to act as a diffractive beam splitter device for incident primary illumination light (L1) ~~and in particular for at least one spectral range or color thereof.~~

8. (Currently Amended) An illumination ~~Illumination~~-unit according to claim 7, wherein said diffractive grating structure (21) comprises at least a grating bulk material (21b), ~~in particular having or forming a first or a light incidence surface (20a), or face.~~

9. (Currently Amended) An illumination ~~Illumination~~-unit according to claim 8, wherein said grating bulk material (21b) is provided with an alternating sequence of concave areas ~~or~~ recesses (21r) and convex areas ~~or~~ protrusions (21p), ~~in particular in or on said first or~~ light incidence surface (20a) ~~or face of~~ said grating bulk material (21b), so as to form grating line elements (22) of said diffractive grating structure (21).

10. (Currently Amended) An illumination ~~Illumination~~ unit according to claim 8,

wherein said grating bulk material (21b) ~~is provided with~~ includes a sequence of embedded material portions, so as to form grating line elements (22) of said diffractive grating structure (21).

11. (Currently Amended) An illumination ~~Illumination~~ unit according to claim 9, wherein said convex ~~areas or~~ protrusions (21p), said concave ~~areas or~~ recesses (21r) and/or said embedded material portions are respectively essentially identical, have a an essentially linear extension and/or are disposed equally spaced and ~~parallelly~~ parallel to each other.

12. (Currently Amended) An illumination ~~Illumination~~ unit according to ~~claim 9~~ claim 10, wherein said concave ~~areas or~~ recesses (21r) of said grating bulk material (21b) and/or said embedded material portions are filled with a filling material.

13. (Currently Amended) An illumination ~~Illumination~~ unit according to claim 12, wherein said filling material has a ~~diffraction~~ refraction index which is different from a ~~diffraction~~ refraction index of said grating bulk material (21b).

14. (Currently Amended) An illumination ~~Illumination~~ unit according to claim 8, wherein said grating bulk material (21b) ~~is or~~ comprises a plurality of layers.

15. (Currently Amended) An illumination ~~Illumination~~ unit according to claim 1, wherein said ~~light selecting element (20)~~ comprises a dichroic multilayer structure (25) comprises an alternating sequence of at least a first layer material (25-1) and a second layer

material (25-2), said first and second layer materials (25-1, 25-2) having different refraction indices (n_1 , n_2), being adapted to act as a dichroic spectral filter device for incident primary illumination light (L1).

16. (Currently Amended) An illumination ~~Illumination-unit~~ according to claim 15, wherein said dichroic multilayer structure (25) ~~is or comprises an alternating sequence of at and~~ said least a first and second layer material-materials (25-1, 25-2) thereof extend in a plane of said light incidence surface (20a) and parallel thereto. ~~and a second layer material (25-2), said first and second layer materials (25-1, 25-2) in particular having different refraction indices (n_1 , n_2).~~

17. (Currently Amended) An illumination ~~Illumination-unit~~ according to ~~claim 15~~ claim 10, wherein at least a part of said concave recesses (21r), of said convex protrusions (21p) and at least a part of said embedded material portions (21e) are formed in said dichroic multilayer structure (25). ~~and/or said at least first and second layer materials (25-1, 25-2) thereof extend essentially in the plane of said first or light incidence surface (20a) or face, in particular parallelly thereto.~~

18- 19 (Canceled)